

WHAT IS CLAIMED IS:

1. A backlight assembly for illuminating a liquid crystal panel, comprising:
a frame having a frame body in which are embedded a plurality of contact pads;
a light-guide plate mounted to the frame; and
5 one or more light-emitting device connected to the contact pads and respectively
having a light-irradiating surface facing a first surface of the light-guide plate, light
irradiated from the one or more light-emitting devices emerging out through a second
surface of the light-guide plate towards the liquid crystal panel.
2. The backlight assembly according to claim 1, comprising a reflective
10 sheet placed at a side of the light-guide plate to direct light towards the liquid crystal
panel.
3. The backlight assembly according to claim 1, wherein the one or more
light-emitting device is placed at a side of the light-guide plate opposite to the side of
the liquid crystal panel.
- 15 4. The backlight assembly according to claim 3; wherein the one or more
light-emitting device is positioned proximate to a side edge of the light-guide plate.
5. The backlight assembly according to claim 4, wherein a reflection
member is provided in an area of the side edge of the light-guide plate to reflect light
irradiated from the one or more light-emitting device.
- 20 6. The backlight assembly according to claim 5, wherein the reflection
member is a reflective coating.

7. The backlight assembly according to claim 5, wherein the reflection member is a surface of the light-guide plate inclined at an angle.

8. The backlight assembly according to claim 3, wherein the light-guide plate includes one or more recessed cavity on the first surface for accommodating the
5 light-irradiating surface of the one or more light-emitting device.

9. The backlight assembly according to claim 1, wherein the first surface of the light-guide plate is a side edge surface of the light-guide plate.

10. The backlight assembly according to claim 1, wherein the frame body is formed by injection-molding.

10 11. The backlight assembly according to claim 1, wherein the contact pads include resilient bent portions to which the one or more light-emitting device is connected by contact engagement.

12. The backlight assembly according to claim 1, wherein the one or more light-emitting device is connected to the contact pads by soldering.

15 13. The backlight assembly according to claim 1, wherein the contact pads are made of a conductive metal or metallic alloy.

14. The backlight assembly according to claim 1, wherein the one or more light-emitting device includes a light-emitting diode.

15. A frame structure for a backlight assembly, comprising:
20 a frame body; and

a plurality of contact pads embedded in the frame body, wherein the contact pads externally connect to a power source and are configured to receive the mount of one or more light-emitting device.

16. The frame structure according to claim 15, wherein the frame body is
5 formed by injection-molding.

16. The frame structure according to claim 15, wherein the contact pads include resilient bent portions to which the one or more light-emitting device is connected by engagement.

17. The frame structure according to claim 15, wherein the contact pads are
10 made of a conductive metal or metallic alloy.

18. The frame structure according to claim 15, wherein the one or more light-emitting device includes a light-emitting diode.